SVI™

SVI•747

MSX 64K RAM MEMORY CARTRIDGE

MSX

SVI-747
USER'S MANUAL
STATEMENT

WARNING:

This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class B computing device pursuant to subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

INTRODUCTION

SVI-747 MSX 64K RAM Memory Cartridge is specially designed for use with MSX computers. This memory cartridge provides 64K bytes continuous memory for those MSX computers which do not have 64K RAM built-in.

With the use of this memory cartridge, the user may run any of the sophisticated CP/M programs already available on the market. This memory cartridge can also be used in the compilation and assembly of programs when larger memory size is required.

Read this instruction manual thoroughly to become familiar with the RAM memory cartridge. It is your guide to proper installation and operation.

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SVI-747
MSX 64K RAM
MEMORY CARTRIDGE
INSTRUCTION MANUAL

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1. ACCESSORIES

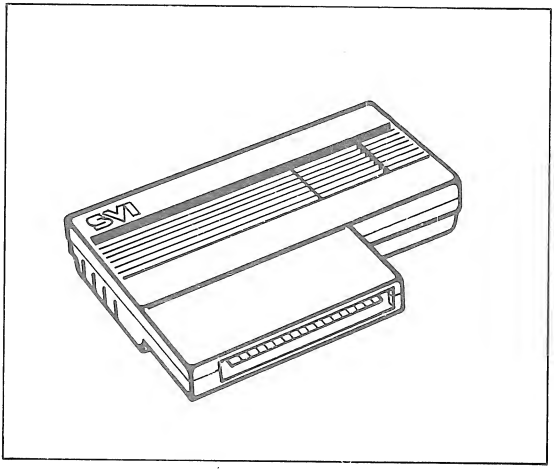
The package of the SVI-747 should contain the following items:

(A) The 64K RAM Memory Cartridge

(B) Instruction Manual (this pamphlet)
Note: No cables are required for installation.

(C) Warranty Registration Card.

2. EXTERNAL VIEW



3. MAIN FEATURES

(A) The main feature of SVI-747 is to provide a continuous 64K memory for your MSX computer. This additional RAM will allow you to compile many more programs, and run some of the more sophisticated CP/M programs.

(B) The cartridge is designed for ease of insertion and for durability.

(C) Durable casing is designed for protection of the circuit board.

(D) Power is supplied by the computer.

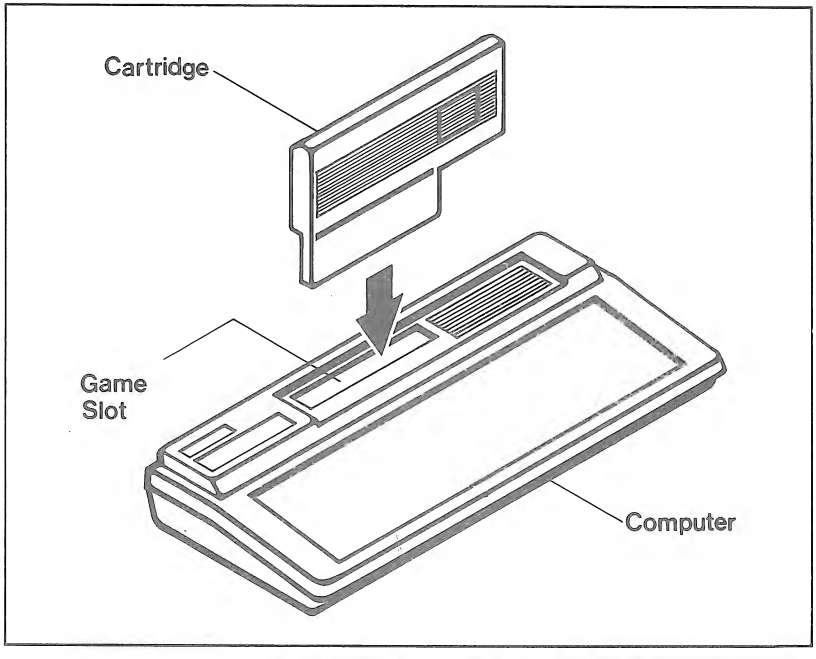
4. CONNECTIONS

The following is a guide to the proper hook-up procedures for the SVI-747 64K RAM Memory Cartridge:

(A) Be sure all power is "OFF" on your MSX computer.

(B) Insert the cartridge into game slot at the top of the computer gently. Do not force.

(C) Be certain the cartridge is fully seated in the slot, and double check all connections.



5. CAUTIONS

Proper cautions should be observed when handling the SVI-747 64K RAM Memory Cartridge and all interface publications.

(A) Never remove or insert a 64K RAM Memory Cartridge or any other peripheral cartridge with the power "ON". This could cause serious damage to your system.

(B) Never remove the protective casing surrounding the printed circuit board.

(C) Never bang or drop the cartridge. This can cause irreparable damage to its circuit board.

6. MAINTENANCE

The performance of preventive maintenance on any peripheral cartridge is essential to the life of the cartridge. The following is a description of preventive maintenance you may perform on your RAM memory cartridge:

(A) Use a cleaning solvent, preferably freon based, to clean the bus fingers located at the bottom of the cartridge.

(B) The use of a wire brush is also recommended when cleaning bus fingers.

(C) Never smoke, eat or drink anything near the cartridge. Particles of food and dust may get lodged in the printed circuit board, affecting performance and perhaps causing damage.

7. TROUBLE SHOOTING CHART

Please disconnect the cartridge from the computer and check whether the computer can function properly.

SYMPTON	POSSIBLE CAUSE	REMERY
64K bytes memory not provided.	Improper connection of the cartridge.	Make sure power is off. Plug the cartridge firmly into the game slot at the top of the computer.

8. I/O ASSIGNMENT

PIN NO.	NAME	I-O*	PIN NO.	NAME	I-O*
1	$\overline{\text{CS 1}}$	O	2	$\overline{\text{CS 2}}$	O
3	$\overline{\text{CS 12}}$	O	4	$\overline{\text{SLTSL}}$	O
5	N.C.	–	6	$\overline{\text{RFSH}}$	O
7	$\overline{\text{WAIT}}$	I	8	$\overline{\text{INT}}$	I
9	$\overline{\text{M1}}$	O	10	$\overline{\text{BUSDIR}}$	I
11	$\overline{\text{IORQ}}$	O	12	$\overline{\text{MERQ}}$	O
13	$\overline{\text{WR}}$	O	14	$\overline{\text{RD}}$	O
15	$\overline{\text{RESET}}$	O	16	N.C.	–
17	A9	O	18	A15	O
19	All	O	20	A10	O
21	A7	O	22	A6	O
23	A12	O	24	A8	O
25	A14	O	26	A13	O
27	A1	O	28	A0	O
29	A3	O	30	A2	O
31	A5	O	32	A4	O
33	D1	I/O	34	D0	I/O
35	D3	I/O	36	D2	I/O
37	D5	I/O	38	D4	I/O
39	D7	I/O	40	D6	I/O
41	GND	–	42	CLOCK	O
43	GND	–	44	SW1	–
45	+5V	–	46	SW2	–
47	+5V	–	48	+12V	–
49	SUNDIN	I	50	–12V	–

* The I/O is based on the computer.

SIGNAL PIN ILLUSTRATION

PIN NO.	NAME	DESCRIPTION
1	$\overline{\text{CS 1}}$	ROM 4000~7FFF selected signal
2	$\overline{\text{CS 2}}$	ROM 8000~BFFF selected signal
3	$\overline{\text{CS 12}}$	ROM 4000~BFFF selected signal
4	$\overline{\text{SLTSL}}$	Slot selected signal. Fixed select signal for each slot.
5	N.C.	Not connected.
6	$\overline{\text{RFSH}}$	Refresh signal.
7	$\overline{\text{WAIT}}$	Wait signal to CPU.
8	$\overline{\text{INT}}$	Interrupt request signal.
9	$\overline{\text{M 1}}$	Fetch cycle signal of CPU
10	$\overline{\text{BUSDIR}}$	This signal controlls the direction of external data bus buffer when the cartridge is selected. It is low level when the data is sent by the cartridge.
11	$\overline{\text{IORQ}}$	I/O request signal.
12	$\overline{\text{MERQ}}$	Memory request signal.
13	$\overline{\text{WR}}$	Write signal.
14	$\overline{\text{RD}}$	Read signal.
15	$\overline{\text{RESET}}$	System reset signal
16	N.C.	Not connected.
17~32	A0~A15	Address bus.
33~40	D0~D7	Data bus.
41	GND	Ground
42	CLOCK	CPU clock 3579 MHz
43	GND	Ground
44, 46	SW1, SW2	Insert/remove protect
45, 47	+5V	+5V power supply
48	+12V	+12 power supply
49	SUNDIN	Sound input (–5dbm)
50	–12V	–12V power supply

9. SPECIFICATIONS

MEMORY	64K RAM
POWER REQUIREMENTS	Supplied by MSX computer
POWER CONSUMPTION	300mA
DIMENSIONS L X W X D (in mm)	170 x 123 x 32

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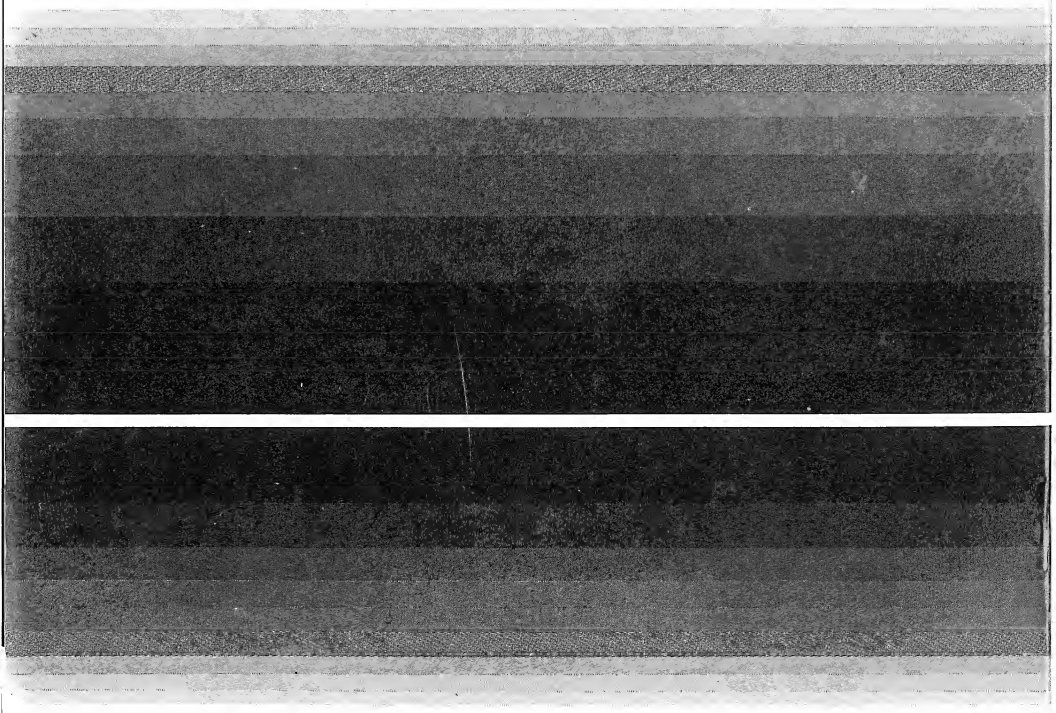

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